

P Achillea millefolium

Common Name(s)

Milfoil, Yarrow

How Used

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Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
2	(-)-BETONICINE	Plant	--	--	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London.	791 pp.
0	(-)-VIBURNITOL	Plant	--	--	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London.	791 pp.
0	(E)-NEROLIDOL	Leaf	--	--		
67	1,8-CINEOLE	Leaf	24	960	-0.31413337784745815	
0	2,3-DEHYDROXYDESACETOXYMATRICIN	Plant	--	--	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL.	566 pp.
0	2,3-DIHYDROACETOXYMATRICIN	Plant	--	--		
0	2-PENTYL-5-PROPYLRESORCINOL	Plant	--	70		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	3-OXAGUAIANOLIDE	Plant	--	--		
0	4-OXO-3,4-DIHYDRO-2,3-DIAZAPHENOXANTHIN	Plant	--	36		
0	5-HYDROXY-3,6,7,4'-TETRAMETHOXYFLAVONE	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite.	
					1991.	
0	6,10,14-TRIMETHYL-PENTADECAN-2-ONE	Plant	--	32		
0	8-ACETOXYARTABSIN	Plant	--	--		
0	8-ACETYLAGELOLIDE	Leaf	--	--	Bisset, N.G., ed. 1994. Herbal Drugs and	
					Phytopharmaceuticals. CRC Press. Boca Raton, FL.	
					566 pp.	
0	8-ANELOOXYARTABSIN	Plant	--	--		
0	ACETYLBALCHANOLIDE	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite.	
					1991.	
0	ACHICEINE	Plant	--	--	Williamson, E. M. and Evans, F. J., Potter's New	
					Cyclopaedia of Botanical Drugs and Preparations,	
					Revised Ed., Saffron Walden, the C. W. Daniel Co.,	
					Ltd., Essex UK, 362 pp, 1988, reprint 1989.	
1	ACHILLEINE	Plant	--	--		
0	ACHILLETINE	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite.	
					1991.	
0	ACHILLICIN	Plant	--	--	Williamson, E. M. and Evans, F. J., Potter's New	
					Cyclopaedia of Botanical Drugs and Preparations,	
					Revised Ed., Saffron Walden, the C. W. Daniel Co.,	
					Ltd., Essex UK, 362 pp, 1988, reprint 1989.	
2	ACHILLIN	Plant	--	--		

	Chemical Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
1	ACONITIC-ACID	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
11	ADENINE	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
1	ALLO-OCIMENE	Leaf	4	140	1	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
20	ALPHA-BISABOLOL	Leaf	1	915	1.264865272094972	
3	ALPHA-CADINOL	Leaf	1	15	0.03356316627597684	
0	ALPHA-COPAENE	Leaf	--	--		
3	ALPHA-CURCUMENE	Leaf	--	--		
2	ALPHA-HUMULENE	Leaf	--	--		
0	ALPHA-MUROLENE	Leaf	--	--		
0	ALPHA-PATCHOULENE	Plant	--	90		
4	ALPHA-PEROXYACHIFOLIDE	Plant	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
11	ALPHA-PHELLANDRENE	Leaf	--	--		
28	ALPHA-PINENE	Leaf	1	1000	-0.15961997585151536	
13	ALPHA-TERPINENE	Leaf	2	130	0.2663807470003411	
23	ALPHA-TERPINEOL	Leaf	1	80	-0.4498172854768475	

	Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	ALPHA-THUJENE	Leaf	--	--			
6	ALPHA-THUJONE	Plant	--	--			
6	ALPHA-THUJONE	Leaf	3	240	-0.5168544216563907		
5	ALUMINUM	Plant	6	34	-0.6894552686751528		
2	ANACYCLIN	Root	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.	
101	APIGENIN	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
2	APIGENIN-7-O-GLUCOSIDE	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	APIGENIN-GLUCOSIDE	Plant	--	--			
0	ARABINOSE	Plant	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.	
0	ARTEMISIA-ALCOHOL	Leaf	1	80			
0	ARTEMISIA-KETONE	Leaf	--	--			
0	ARTEMISIATRIENE	Leaf	1	65	-1.414213562373094		
0	ARTEMITIN	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
15	ASCARIDOLE	Leaf	120	6600	-0.3837260705884196	
0	ASCARIDOLE-ISOMER	Leaf	5	335		
112	ASCORBIC-ACID	Plant	119	672	-0.4359276103428388	
112	ASCORBIC-ACID	Leaf	580	3100	-0.15627959906914124	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ASH	Plant	17700	100000	-0.3796129196407384	
2	ASPARAGINE	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	AUSTRICIN	Plant	--	--		Wealth of India.
10	AZULENE	Leaf	--	7140		
0	BALCHANOLIDE	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	BALCHANOLIDE-ACETATE	Plant	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	BENZALDEHYDECYANHYDRINGLYCOSIDE	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
53	BETA-CAROTENE	Plant	--	--		
0	BETA-CARYOPHYLLENE	Leaf	1	65	-0.303004238741691	

	Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	BETA-CARYOPHYLLENE-OXIDE	Leaf	1	30	-1		
0	BETA-CUBEBENE	Leaf	1	15	-0.27140166674948796		
5	BETA-ELEMENE	Leaf	--	--			
0	BETA-FARNESENE	Leaf	--	--			
0	BETA-HIMACHALENE	Plant	--	50			
13	BETA-PINENE	Leaf	1	720	0.6328642794210592		
47	BETA-SITOSTEROL	Plant	--	--		Pedersen, M.	1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	BETA-SITOSTEROL-ACETATE	Plant	--	--		Pedersen, M.	1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
5	BETA-THUJONE	Leaf	1	30	-0.5791445507936085		
14	BETAIN	Plant	--	--		Wealth of India.	
2	BETONICINE	Plant	--	--		Wealth of India.	
35	BORNEOL	Leaf	6	275	-0.1351054728581718		
12	BORNYL-ACETATE	Plant	--	50	-0.43702890811674244		
6	BUTYRIC-ACID	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
102	CAFFEIC-ACID	Plant	--	--			
28	CALCIUM	Plant	1535	8670	-0.5262108144941796		
9	CAMPHEN	Leaf	2	600	0.03409920562522311		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	CAMPHERENONE	Plant	--	70		
41	CAMPHOR	Leaf	20	1780	-0.18433975802654748	
0	CAPRIC-ACID-METHYL-ESTER	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
2	CAPRYLIC-ACID-METHYL-ESTER	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	CARBOHYDRATES	Plant	133104	752000	0.5125462432567227	
37	CARVACROL	Leaf	--	--		
31	CARYOPHYLLENE	Leaf	4	160	-0.5782062507598946	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
6	CASTICIN	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	CEROTINIC-ACID	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
10	CHAMAZULENE	Plant	50	2800		
0	CHAMAZULENE-CARBOXYLIC-ACID	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
77	CHLOROGENIC-ACID	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L.	1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
20	CHOLINE	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L.	1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
24	CHROMIUM	Plant	0.4	2.5	-0.6300345087929166	
0	CHRSANTHENYL-ACETATE	Leaf	--	--		
0	CINEOLE	Plant	--	--	Pedersen, M.	1987. <i>Nutritional Herbology</i> . Pederson Publishing. Bountiful, Utah. 377 pp.
0	CIS-BETA-FARNESENE	Plant	--	110		
0	CIS-CARVEOL	Plant	--	200	1	
0	CIS-CHRSANTHENOL	Leaf	1	30		
3	CIS-DEHYDROMATRICARIA-ESTER	Leaf	--	--	List, P.H. and Horhammer, L.	Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CIS-JASMONE	Leaf	2	125	1.7044539014540394	
0	CIS-NEROLIDOL	Plant	--	230	1	
0	CIS-SABINENE-HYDRATE	Leaf	1	80	-0.2862032724587523	
0	CIS-SABINOL	Plant	--	100	1	
2	COBALT	Plant	0.6	3.1	-0.37614265145342984	

	Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
1	COPAENE	Leaf	1.5	60	1.1888404716143406	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
4	COSMOIIN	Plant	--	--			Wealth of India.
0	COUMARINS	Plant	--	3500	-1	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.	
10	CUMINALDEHYDE	Leaf	0.3	11	-0.8843635097531161	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
0	DEACETYLMATRICAIN	Leaf	--	--			
0	DEACETYLMATRICARIN	Plant	--	--			
0	DELTA-4-CARENE	Leaf	--	--			
9	DELTA-CADINENE	Leaf	0.2	8	-0.4292576505663304	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.	
0	DESACETYLMATRICIN	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.	
1	DEXTROSE	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.	
0	DIHYDROPARTHENOLIDE	Leaf	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.	
2	DULCITOL	Plant	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.	

	Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	EO	Flower	700	5000	-0.256861435811866	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	EO	Leaf	250	14000	0.3927378316881657		
0	EO	Plant	177	14000	0.3238465858545322		
13	EUCALYPTOL	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.	
76	EUGENOL	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.	
2	FARNESENE	Plant	--	--			
0	FAT	Seed	223000	334000	0.3614060995374496	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses	
0	FAT	Plant	7080	40000	-0.1714507664609065		
61	FERULIC-ACID	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.	
15	FIBER	Plant	69000	201000	-0.16122268403058113		
0	FIBER(CRUIDE)	Plant	--	69000	-0.6486558303247424		
0	FIBER(DIETARY)	Plant	--	412000	0.5188999674765548		
15	FOLACIN	Plant	--	--			

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
23	FOLIC-ACID	Leaf	--	--		Wealth of India.
13	FORMIC-ACID	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	FURFURAL	Plant	--	--		
1	FURFURYL-ALCOHOL	Plant	--	--		
1	GALACTOSE	Plant	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
62	GALLIC-ACID	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	GAMMA-CADINENE	Leaf	--	--		
11	GAMMA-TERPINENE	Leaf	9	370	0.34147926512769305	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	GERANIAL	Leaf	1	50	-0.3978078018016716	
5	GERANYL-ACETATE	Plant	--	36	-0.5241410325713916	
2	GERMACRENE-D	Leaf	--	--		
7	GLUCOSE	Plant	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
8	GLUTAMIC-ACID	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
12	GLYCINE	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.	
6	GUAIAZULENE	Plant	--	--	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.	
0	HEPTADECANE	Plant	--	--		
7	HISTIDINE	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.	
0	HOMOSTACHYDRINE	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.	
2	HUMULENE	Leaf	0.5	22	-0.3745832187878271	
32	HYDROQUINONE	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.	
0	HYDROXYACHILLIN	Plant	--	--	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.	
8	INOSITOL	Plant	--	--	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.	

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19	INULIN	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
6	IRON	Plant	--	--		
0	ISOARTEMISIA-KETONE	Plant	--	--		
0	ISOARTEMISIA-KETONE	Leaf	20	16000	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.	
7	ISOBORNEOL	Leaf	5	320	-0.49513094589241385	
3	ISOBUTYL-ACETATE	Plant	--	--		
11	ISORHAMNETIN	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.	
0	ISOSCHAFTOSIDE	Plant	--	--	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.	
5	ISOVALERIC-ACID	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	KILOCALORIES	Plant	2900	2900	-0.36931512722389037	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	LAVANDULOL	Leaf	1	15	1.7320504652833757	

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		PPM	PPM			
0	LEUCODIN	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
60	LIMONENE	Leaf	1	170	-0.268944101986277	
53	LINALOOL	Leaf	1	4000	2.122508536493081	
27	LINOLEIC-ACID	Leaf	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	LINOLEIC-ACID-ETHYL-ESTER	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	LINOLEIC-ACID-METHYL-ESTER	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
2	LINOLENIC-ACID-METHYL-ESTER	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
78	LUTEOLIN	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
7	LUTEOLIN-7-GLUCOSIDE	Plant	--	--		

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0	LUTEOLIN-7-O-BETA-D-GLUCOPYRANOSIDE	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	LUTEOLIN-7-O-GLUCOSIDE	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	LYSINE	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
65	MAGNESIUM	Plant	340	1920	-0.6662824225194472	
2	MALTOSE	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
4	MANDELIC-ACID	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	MANDELONITRILE-GLUCOSIDE	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
14	MANGANESE	Plant	1	5	-0.6590690061822261	
18	MANNITOL	Plant	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	MATRICIN	Plant	--	--	Bisset, N.G., ed.	1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
63	MENTHOL	Plant	--	--		
0	MILLEFIN	Plant	--	--	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.	
0	MILLEFOLIDE	Plant	--	--	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.	
0	MOSCHATINE	Plant	--	--	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.	
22	MYRCENE	Leaf	0.5	20	-0.1654584943659963	
6	MYRISTIC-ACID	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
5	NERYL-ACETATE	Plant	--	28	-0.5370290118452437	
39	NIACIN	Plant	--	--		
0	OCTEN-3-OL	Leaf	--	--		
18	OLEIC-ACID	Plant	--	--	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	

Chemical	Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
16	P-CYMENE	Leaf	9	370	0.584380733883737		
13	PALMITIC-ACID	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
1	PALMITIC-ACID-ETHYL-ESTER	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.	
0	PALMITIC-ACID-METHYL-ESTER	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.	
0	PENTACOSANE	Plant	--	--			
26	PHENOL	Plant	--	155	-1		
8	PHLOROGLUCINOL	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.	
4	PHOSPHORUS	Plant	522	2950	-0.3068982377399405		
3	PONTICAEOPOXIDE	Plant	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
14	POTASSIUM	Plant	3151	17800	-0.278763301762186		
0	PROAZULENE	Plant	--	--			

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	PROCHAMAZULENE	Plant	--	--	Bisset, N.G., ed.	1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	PROTEIN	Plant	19116	108000	-0.5364847835043116	
0	PROTEIN	Seed	286000	369000	1.2027089985205746	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
43	PROTOCATECHUIC-ACID	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L.	1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
2	PRUNASIN	Plant	--	--	Bisset, N.G., ed.	1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
12	PYROCATECHOL	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L.	1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
176	QUERCETIN	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L.	1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	QUERCETIN-GLYCOSIDE	Plant	--	--		
44	QUERCITRIN	Plant	--	--		
0	RESIN	Plant	6000	6000	-0.8622069963910537	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
15	RIBOFLAVIN	Plant	1	5.6	-0.40499841324824026	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
87	RUTIN	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.	
5	SABINENE	Leaf	1	1225	0.5192871434052357	
34	SALICYLIC-ACID	Plant	--	--	Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.	
5	SAPONINS	Leaf	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
60	SELENIUM	Plant	0.3	1.6	-0.35611748372726487	
4	SILICON	Plant	1	4.5	-0.5190064670266766	
1	SODIUM	Plant	15	82	-0.2995388449907829	
0	SPATHULENOL	Plant	--	495	2.658868354096619	
6	STACHYDRINE	Plant	--	--		
8	STEARIC-ACID	Plant	--	--	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.	
12	STIGMASTEROL	Plant	--	--		
7	SUCCINIC-ACID	Plant	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
7	SUCCINIC-ACID	Leaf	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
14	SUCROSE	Plant	--	--		Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
3	SWERTISIN	Plant	--	--		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	T-CADINOL	Leaf	1	15	-0.5225815390117998	
41	TANNIC-ACID	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
35	TANNIN	Plant	28000	40000	-0.6370616203493836	
23	TERPINEN-4-OL	Leaf	3	430	-0.24039913557404782	
18	TERPINEOL	Plant	--	--		
9	TERPINOLENE	Leaf	1	50	-0.1684008925639172	
31	THIAMIN	Plant	--	--		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	THIAMINE	Plant	--	--		
0	THIOPHENES	Flower	167	167		
0	THIOPHENES	Leaf	167	167		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
17	THUJONE	Plant	--	--		
71	THYMOL	Leaf	1	15	-0.41187649807173515	
4	TIN	Plant	5	26	0.34911685139896836	
1	TRANS-CARVEOL	Plant	--	150	1.4141140551271352	
2	TRANS-DEHYDROMATRICARIA-ESTER	Leaf	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	TRANS-TRANS-FARNESOL	Plant	--	160		
0	TRICOSANE	Plant	--	--		
0	TRICYCLENE	Leaf	0.6	27	-0.8389074385035388	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
15	TRIGONELLINE	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
2	UNDECYLENIC-ACID-METHYL-ESTER	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
24	VANILLIC-ACID	Plant	--	--		Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	VIBURNITOL	Plant	--	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	VICENIN-2-SCHAFTOSIDE	Plant	--	--	Bisset, N.G., ed.	1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	VICENIN-3-SCHAFTOSIDE	Plant	--	--	Bisset, N.G., ed.	1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	WATER	Plant	--	823000	0.22291061491730124	
0	YOMOGI-ALCOHOL	Leaf	5	270		
77	ZINC	Plant	--	--		